

**WATER RESOURCES RESEARCH CENTER  
SERVES  
THE ARIZONA WATER COMMUNITY**

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Introduction

The Water Resources Research Center has a broad focus. The center, which is funded by federal and state monies, is located within the University of Arizona's College of Engineering and Mines. The Center's scope of interest, however, includes all academic disciplines that are involved in water-related studies. Further, the center, although located on the UA campus, is involved with other Arizona universities--Arizona State University and Northern Arizona University.

Also, the center promotes communications between the universities and the wider water community, including federal, state and local government agencies and the private sector. The center is one of 54 water centers funded nationally by the U.S. Geological Survey. Centers exist in each of the 50 states and in Guam, Puerto Rico, the Virgin Islands, and the District of Columbia.

This paper discusses the center's main activities--research support and information transfer--and will describe the specific services the center provides to the people, agencies and institutions that make up the state and regional water community.

As the center plans its research support and information transfer activities, it confers with representatives of water users groups, public water agencies, and other water decision makers to identify critical state water issues. Information is exchanged through the center's formal advisory committee, water conferences and meetings, and informal discussions. The identified state issues provide the basis for research and information transfer activities.

Research Support

The center's research support program is best understood as a process involving state-of-knowledge assessments, specific projects or reports from Scientific Advisory Committees organized

by the water center. For example, a research topic might be addressed by a state-of-knowledge assessment which is later reviewed by a Scientific Advisory Committee. From the review the committee might then develop further research topics for future state-of-knowledge assessments and also suggest topics for specific research projects. The assessments are published as issue papers and are distributed as part of the center's information transfer program.

Each of the components of the research support program will be discussed.

### State-of-Knowledge Assessments

The important first step in any research enterprise is an assessment of current knowledge. By investigating what is known, a sense of what further work needs to be done is developed; therefore, the center funds state-of-knowledge assessments. The assessments are usually supported for about three to six months. Currently, state-of-knowledge assessments are being developed for institutional aspects of integrated and conjunctive water management and for a unified hydrologic flow model. As mentioned the results of the assessments will be presented as issue papers to be distributed as part of the center's information transfer program.

### Scientific Advisory Committee

A Scientific Advisory Committee responds to state-of-knowledge assessments and is made up of members of the Water Resources Research Center's advisory committee, university researchers and others who are knowledgeable in particular subject areas. An assessment helps set the agenda of the Scientific Advisory Committee which proposes additional research in the area and sets research priorities.

### Specific Projects

Specific projects respond to research priorities set by the Scientific Advisory Committees. These projects are major research efforts and can be supported for periods up to three years.

### Information Transfer

Information transfer and research are closely related activities. Research gathers and interprets information and information transfer disseminates the results in a timely fashion. Along with disseminating research results, the center's information transfer program also provides interpretation of research results and identifies areas of needed research.

The center's information transfer program consists of publications, conferences and workshops, and database services.

### Publications

The Water Resources Research Center's publications include issue papers, newsletters and other periodic publications.

Issue Papers The center sponsors a series of issue papers on water topics of critical importance. The purpose of the issue papers is to disseminate information about research findings and to identify research gaps that exist; thereby, setting the agenda for the next round of research. Depending upon the subject matter and its treatment, the papers are directed to various audiences, from water professionals to the general public. For example, the issue paper, "Central Arizona Project Water Quality: An Examination of Management Options," discussed diverse water-quality management options. It described possible choices and evaluated the relative advantages and disadvantages, strengths and weaknesses, and costs and benefits of various water-quality management methods. The issue paper was intended as a resource to assist water managers in choosing a suitable water-quality strategy for various CAP water uses.

The center's most recent issue paper, "Water Farming: The Promise and Problems of Water Transfers in Arizona," has a different focus. This issue paper provides a general review of the issues and concerns relating to water transfers. The publication is intended for professionals as well as a general, nonspecialized audience, with material presented in a question-and-answer format.

The previously mentioned state-of-knowledge assessments that are in progress will be published as issue papers.

Newsletters The center also publishes a quarterly newsletter "Arroyo." The newsletter is sent to almost 2,000 people, most from Arizona but some from other parts of the Southwest and a few from other areas of the country. Readers come from a wide range of backgrounds and interests.

Each issue of "Arroyo" focuses on a different water topic. Two recent topics were water quality and water transfers. The next issue will discuss the Arizona Groundwater Code and the Second Management Plan.

The center also publishes the "Arizona Water Research News." This newsletter, which is published during the academic year, is distributed to water researchers at the state universities in Arizona. The newsletter contains information about research, funding sources and general information of interest to water researchers.

Other periodic publication The center publishes an annual report that describes its activities, including sponsored research, publications, conferences, staff activities, and other aspects of the center's operations. The annual report is published each July. The center also makes available project completion reports from research efforts, and plans to provide access to theses and dissertations resulting from these projects. Other publications are developed as specific needs are identified.

### Conferences and Workshops

The center sponsors an annual research conference to promote communications between water researchers and research users. The first conference, which was held two years ago, was called appropriately, "Getting Acquainted: Arizona's Water Researchers and Research Users." It provided a unique opportunity for research users to tell of their concerns, needs and priorities; and researchers from the three Arizona universities to present the results of their work.

This year's conference was titled, "University Water Research in Arizona: What Have We Learned? Where Are We Going?" The morning session was made up of three panels each featuring a main speaker who presented an overview of research in a specific area. Each main speaker was followed by two research users who commented on the conducted research and provided ideas for future research needs. A poster session was also organized to provide researchers the opportunity to display the results of their work.

The third annual research/researcher users conference is planned for this fall.

The Water Resources Research Center also organizes specialized workshops on water topics of current interest. Last fall the people of Tucson were asked to vote on a proposition that would decide whether the city's allotment of Central Arizona Project water should be entirely recharged into the aquifer or whether a portion should be treated and distributed. To help Tucsonans decide the issue, the water center organized a series of public meetings to discuss the issue from various perspectives. Other workshops or forums will be conducted as needed.

### Data Base Services

The center's objective is to provide several types of database services, primarily to the academic community. Several numerical water databases (e.g. WATSTOR, STORET, Hydrodata, etc.) will be available, as will a variety of bibliographic databases (through PROSEARCH). Also a computerized expertise directory/referral service is being developed that will list water and water-related researchers at Arizona's state universities and

their specialized interests. The center is also in the process of cataloguing and computerizing its library, a 40,000-document collection. The library has an extensive collection of the so-called "gray literature" (e.g., conference proceedings, project completion reports, etc.) and will represent a significant resource for researchers once ongoing automation procedures are completed in about a year and a half.